

To give some idea of the extraordinary price which is now sometimes required for shells, I may state that the second specimen of this Cowry, sent home by Mr. Gunn to a London collector, was offered by him to Miss Saul for £30, and eventually realised that price.—*From the Proceedings of the Zoological Society for Nov. 1849.*

THE HIPPOPOTAMUS AT THE ZOOLOGICAL GARDENS.

To the Editor of the Annals of Natural History.

MY DEAR SIR,—I send you a few notes on the newly-arrived Hippopotamus, whilst the impressions of the survey of this truly extraordinary quadruped are fresh in the mind, and thinking they may interest our zoological friends in the country who have not yet had the opportunity of inspecting this great rarity.

The young Hippopotamus was safely housed in the comfortable quarters prepared for it at the Zoological Gardens about 10 o'clock on Saturday night (May 25th), having arrived by special train from Southampton, where it was landed from the 'Ripon' steamer which reached that port early in the morning. The strong attachment of the animal to its keeper removed every difficulty in its various transfers from ship to train, and from waggon to its actual abode. On arriving at the Gardens, the Arab who has had the charge of it walked first out of the transport van, with a bag of dates over his shoulder, and the beast trotted after him, now and then lifting up its huge grotesque muzzle and sniffing at its favourite dainties, with which it was duly rewarded on entering its apartment. When I saw the Hippopotamus the next morning, it was lying on its side in the straw with its head resting against the chair on which its swarthy attendant sat; it now and then uttered a soft complacent grunt, and, lazily opening its thick smooth eyelids, leered at its keeper with a singular protruding movement of the eyeball from the prominent socket, showing an unusual proportion of the white, over which large conjunctival vessels converged to the margin of the cornea. The retraction of the eyeball is accompanied by a protrusion of a large and thick 'palpebra nictitans,' and by a simultaneous rolling of the ball obliquely downwards and inwards or forwards.

The young animal was captured at the beginning of August 1849, on the banks of the Nile about 350 miles above Cairo: it was supposed to have been recently brought forth, being not much bigger than a new-born calf, but much stouter and lower. The attention of the hunters was attracted to the thick bushes on the river's bank in which the young animal was concealed, by the attempt of its mortally wounded mother to return to the spot. When discovered, the calf made a rush to the river, and had nearly escaped owing to the slipperiness of its naked lubricous skin, and was only secured by one of the men striking the boat-hook into its flank: it was then lifted by one of the men into the boat. The cicatrix of the wound is still visible on the middle of its left side: the attendant informed me that the scar was much nearer the haunch when the animal first arrived at Cairo; its relative position has changed with the growth of the body.

The young animal, which we may reckon to be ten months old, is now 7 feet long and $6\frac{1}{2}$ feet in girth at the middle of the barrel-shaped trunk, which is supported, clear of the ground, on very short and thick legs, each terminated by four spreading hoofs: the innermost is the smallest on the fore-foot; the two middle ones, answering to those which are principally developed in the hog, are the largest in both feet. The hind-limb is buried in the skin of the flank nearly to the prominence of the heel. Thick flakes of cuticle are in process of detachment from the sole. There is a well-defined white patch behind each foot, but I looked in vain for any indications of the glandular orifice which exists in the same part of the rhinoceros. The naked hide covering the broad back and sides is of a dark india-rubber colour, impressed by numerous fine wrinkles crossing each other, but disposed almost transversely. When I first saw the beast it had just left its bath, and a minute drop of a glistening secretion was exuding from each of the conspicuous muco-sebaceous pores which are dispersed over the whole integument, at intervals of from eight lines to an inch. This gave the hide, as it glistened in the sunshine, a very peculiar aspect. When the animal was younger the secretion had a reddish colour, and, being poured out more abundantly, the whole surface became painted over with it every time he quitted his bath. The integument is impressed by a groove which passes transversely from shoulder to shoulder; and there are two transverse nuchal folds, crossed by a median longitudinal furrow, the lateral moieties of the strong 'ligamentum nuchæ' forming a pair of well-marked prominences behind the occiput. The ears are very short, conical, fringed with short scattered hairs along the lower half of their thick borders, and beset with a few clumps of short hairs upon the middle of their inner surface. It moves them about with much vivacity. The dark colour of the body extends forwards along the middle of the upper part of the head and more faintly along the cheeks: the skin around the ears is of a light reddish-brown colour and almost flesh-coloured round the eyelids, which defend the peculiarly situated and prominent eyes: there is a single groove or fold above the upper eyelid, and two curved grooves below the lower one. At first sight they seem to be devoid of eyelashes, but on a close inspection a few very short hairs may be seen on the thick rounded margin of the upper lid. There is a caruncle or protuberance on the middle of the outer surface of the nictitating lid. The colour of the iris is a dark brown: the pupil is a small transversely oblong aperture. The eyeball is relatively small, and is remarkable for the extent of the movements of protraction and retraction. The nostrils, situated on prominences, which the animal has the power of raising, on the upper part of the broad and massive muzzle, are short oblique slits, guarded by two valves, which can be opened and closed spontaneously, like the eyelids. The movements of these apertures are most conspicuous when the beast is in his favourite element. The wide mouth is chiefly remarkable for the upward curve of its angles towards the eyes, which gives a quaintly comic expression to the massive countenance. The short and small milk-tusks project a little, and the minute deciduous incisors appear

to be sunk in grooves or pits of the thick gums : but the animal would not permit any close examination of his teeth ; withdrawing his head from the attempt and then threatening to bite. The muzzle is beset with short bristles projecting at pretty regular distances ; several of them appearing to be split into tufts or pencils of short hairs. Extremely fine and short hairs are scattered all over the back and sides ; which are not very obvious except upon a close inspection. The tail is short, rather flattened, and gradually tapering to an obtuse point.

After lying quietly about an hour, now and then raising its head and swiveling its eyeballs towards the keeper, or playfully opening its huge mouth and threatening to bite the leg of the chair on which his keeper sat, the hippopotamus rose and walked slowly about its room, and then uttered a loud and short harsh snort, four or five times in quick succession, reminding one of the snort of a horse, and ending with an explosive sound like a bark. The keeper understood the language, and told us that the animal was expressing its desire to return to its bath. The beast at this time was in one of the compartments of the wing of the Giraffe-house on the opposite side to that in which its bath is prepared. It carries its head rather depressed, and reminded me most of a huge prize hog, but with a breadth of muzzle and other features peculiarly its own. The keeper opened the door leading into the Giraffe's paddock and walked through that to the new wing containing the bath, the hippopotamus following, like a dog, close to his heels. On arriving at the bath-room the animal descended with some deliberation the flight of low steps leading into the water, stooped and drank a little, dipped his head under, and then plunged forwards. It was no sooner in its favourite element than its whole aspect changed, and it seemed inspired with new life and activity : sinking down to the bottom and moving about submerged for a while, it would suddenly rise with a bound, almost bodily out of the water, and splashing back commenced swimming and plunging about with a cetaceous or porpoise-like rolling from side to side, taking in mouthfuls of water and spurting them out again, raising every now and then its huge grotesque head, and biting the woodwork at the margin of the bath. The broad rounded back of the animal being now chiefly in view, it looks a much larger animal than when out of the water. After half an hour spent in this amusement it quitted the water at the call of its keeper, and followed him back to the sleeping room which is well-bedded with straw, and where a stuffed sack is provided for its pillow, of which the animal, having a very short neck, thicker than the head, duly avails itself when it sleeps. When awake it is very impatient of any absence of its favourite attendant, rises on its hind legs, and threatens to break down the wooden fence, by butting and pushing against it in a way strongly significative of its great muscular force. The animal appears to be in perfect health, and breathes when at rest slowly and regularly, from three to four times in a minute. Its food is now a kind of porridge of milk and maize-meal. Its appetite has been in no respect diminished by the confinement and inconveniences of the sea-voyage, or by change of climate. It is more than half-weaned from the milk-diet, which, it is

said, created a scarcity of that article at Cairo, owing to the enormous supply which the cravings of the young animal required, whilst under the fostering care of our excellent Chargé d'Affaires the Hon. Mr. Murray; to whom, after the princely donor, Abbas Pacha, zoologists at home are chiefly indebted for the present opportunity of studying this most remarkable and interesting African mammal, of which no living specimen has been seen in Europe since the period when they were last exhibited by the third Gordian in the Amphitheatre of Imperial Rome.

I remain, my dear Sir, yours very faithfully,

Richard Taylor, Esq., F.L.S. &c.

RICHARD OWEN.

METEOROLOGICAL OBSERVATIONS FOR APRIL 1850.

Chiswick.—April 1. Overcast: rain. 2. Cloudy: clear. 3. Fine: showery at night. 4. Boisterous, with rain. 5. Cloudy and rather boisterous: fine: clear. 6. Overcast. 7. Cloudy and fine. 8. Foggy: overcast: slight showers. 9. Cloudy. 10. Very fine. 11. Rain: showery: overcast. 12. Fine: hot sun: thunder commenced $\frac{1}{4}$ past 12 noon: overcast at night. 13. Hazy: rain. 14. Hazy: rain at night. 15. Rain: very heavy rain in forenoon: cloudy. 16. Showery. 17. Low white clouds: fine throughout. 18. Clear: very fine. 19. Rain. 20. Showery. 21. Slight rain: cloudy. 22. Fine: clear. 23. Overcast: cloudy. 24. Clear: fine. 25. Fine: overcast and cold: clear at night. 26. Cloudy and cold. 27. Fine, but cold. 28, 29. Cloudy: fine, but cold, with excessively dry air. 30. Fine: cloudy.

Mean temperature of the month 48°·41

Mean temperature of April 1849 44·29

Mean temperature of April for the last twenty-four years ... 47·53

Average amount of rain in April 1·46 inch.

Boston.—April 1. Cloudy. 2. Cloudy: rain P.M. 3. Fine. 4. Cloudy: rain A.M. 5. Cloudy. 6. Cloudy: rain P.M. 7. Cloudy. 8. Cloudy: rain A.M. and P.M. 9. Cloudy: rain P.M. 10. Fine. 11, 12. Cloudy. 13. Cloudy: rain P.M. 14. Cloudy. 15. Cloudy: rain early A.M. 16. Cloudy: rain A.M. and P.M. 17. Cloudy: rain. 18. Fine. 19. Cloudy: rain A.M. 20, 21. Cloudy: rain P.M. 22. Cloudy. 23. Cloudy: rain. 24. Cloudy. 25. Fine. 26—28. Cloudy. 29. Cloudy: rain P.M. 30. Cloudy.

Applegarth Manse, Dumfries-shire.—April 1, 2. Rain, moderate. 3. Rain: mild: heavy P.M. 4. Rain heavy during night: drizzling throughout the day. 5. Rain in the night: dry and windy. 6. Heavy showers all day. 7. Rain: cleared P.M. 8. Rain. 9. Slight shower. 10. Rain in the night. 11. Frost: clear sunshine. 12. Fine day. 13. Fine A.M.: cold and windy P.M. 14. Strong cold east wind. 15. Rain and high wind. 16. Fair and fine: slight drizzle P.M. 17. Fine: shower heavy P.M. 18. Mild: growing shower. 19. Rain early A.M.: fair day. 20. Rain early: showery day. 21. Fair and fine. 22. Cold and clear. 23. Cold and clear: slight frost. 24. Cold and clear: frost A.M. 25. Rain and wind: boisterous. 26. Fair: cold. 27. Fair: clear and cold. 28. Fair A.M.: slight shower P.M. 29. Frost early. 30. Cold: a few drops of rain.

Mean temperature of the month 46°·3

Mean temperature of April 1849 42·3

Mean temperature of April for the last twenty-eight years ... 44·3

Rain in April 1849 2·52 inches.

Rain in April for twenty-three years 1·76 inch.

Sandwick Manse, Orkney.—April 1. Fog: damp. 2. Cloudy: rain. 3. Damp. 4. Rain. 5. Drizzle. 6. Cloudy: hazy A.M. 7. Cloudy: drops A.M. 8. Rain: cloudy. 9. Drizzle: showers. 10. Hazy: clear. 11. Drops: damp. 12. Bright: fine. 13. Cloudy: clear. 14. Clear: cloudy. 15. Drizzle: cloudy. 16. Rain: cloudy. 17. Cloudy. 18. Showers: bright: cloudy. 19. Cloudy: showers: cloudy. 20. Bright: cloudy. 21. Cloudy: drops. 22. Bright: clear. 23, 24. Cloudy. 25. Bright: clear. 26. Cloudy: drops. 27. Clear: fine. 28. Cloudy: fine. 29, 30. Drops: cloudy.